

ABSTRACT OF DISCLOSURE

It is an object of the present invention to provide a method for extracting a maximum gain of a servo controller in which while a machine is vibrated by raising a control gain, the vibration is rapidly detected so that the machine does not greatly vibrate or noise is not generated.

In a method for extracting a maximum gain of a servo controller for driving a servo motor, a simulated disturbance torque is applied to a torque command by a vibrating unit while a control gain is raised and the vibration of a control system is detected by a vibration detecting unit (1). A process for applying the simulated disturbance torque is repeated while the control gain is raised until the vibration of a prescribed level is detected. The control gain when the vibration detecting unit (1) detects the vibration exceeding the prescribed level is set as a maximum gain.